BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Investigation pursuant to Senate Bill 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility located in the County of Los Angeles while still maintaining energy and electric reliability for the region.	Investigation 17-02-002 (Filed February 9, 2017)

INFORMAL COMMENTS OF MAGNUM ENERGY MIDSTREAM HOLDINGS, LLC ON REVISED PROPOSED SCENARIOS FRAMEWORK

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I. INTRODUCTION

Magnum Energy Midstream Holdings, LLC (Magnum)[1] appreciates this opportunity to provide feedback on the Energy Division's revised proposed scenarios framework. It's clear that staff put a lot of thought and effort into developing its initial proposal. And the revised proposal evidences staff's openness to constructive criticism. Magnum is therefore confident these comments will be received in the cooperative spirit in which they are offered.

Magnum has two major concerns about the revised proposed framework. First, it

[1] Magnum is a wholly-owned subsidiary of Magnum Development, LLC. Magnum Development was formed in 2008 to develop the Magnum Gas Storage (MGS) project, a salt-cavern-based natural gas storage facility located in central Utah near the Intermountain Power Project. On June 27, 2018, Magnum announced an open season for the Western Energy Storage and Transportation Header Project (WEST Header), a new 650-mile large diameter interstate pipeline running from the Salt Lake City Valley and Goshen Hub in Utah to Las Vegas, Nevada, and along the California/Arizona border south to Yuma, Arizona. By connecting the MGS project with various production sources throughout the Rocky Mountain region and the Permian Basin, the WEST Header will enable Magnum to supply highly flexible, intra-day storage and transportation services to markets throughout the Western United States, including Southern California. For more information about the WEST Header, please visit www.westhp.com.

continues to be built on overly optimistic assumptions about the operational capabilities of the Southern California Gas Company (SoCalGas) system. Second, it makes no provision for modeling the potential reliability benefits from utilizing independent gas storage and storage-based services to help mitigate lost deliverability from Aliso Canyon. Magnum offers specific suggestions in these comments to remedy what it believes are the most acute of these deficiencies. In addition, Magnum flags for discussion a concern with staff's proposed criteria for assessing the potential impact of tighter gas supplies in Southern California on regional power markets.

II. HYDRAULIC MODELING

A. Reliability Assessments

The stated purpose of the Reliability Assessments is to "provide model results indicating the lowest minimum storage requirement at Aliso Canyon to ensure system reliability for SoCalGas customers."[2] The revised proposal further states that Reliability Assessments "will use full implementation of all allowable operational actions to achieve the required system performance."[3] Magnum agrees that is the right approach, provided the gas system is modeled in a realistic manner. Sufficiently realistic modeling will produce the desired result, which is to demonstrate whether "it is *possible* to achieve the minimum gas system performance standard without implementing operational actions beyond that which is allowable by the standard."[4]

Unfortunately, some of staff's proposed assumptions about the SoCalGas system are overly optimistic. Model runs based on optimistic assumptions may demonstrate that it's not impossible to achieve the minimum performance standard, at least under nominal conditions.

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[2] Update to the Proposed Scenarios Framework (Updated Proposal) at 7.

[3] *Id.* at 8.

[4] *Id.* at 9 (emphasis in original).

They will not, however, provide reliable data about the performance standard's achievability under less than optimal conditions. The Reliability Assessments could thus end up validating minimum storage requirements that are significantly lower than what's needed.

One of staff's proposed assumptions that is overly optimistic is a 95% receipt point utilization rate.[5] This figure appears to be based on a study that (a) was focused on utilization rates under very specific conditions, namely Low Operational Flow Orders (Low OFOs), and (b) was based on very limited data set (less than two years of data).[6] It's thus far from clear whether 95% is a realistic rate to use for Reliability Assessments. As SoCalGas has pointed out, even staff's originally proposed receipt point utilization rate (85%) was unrealistic, as it greatly exceeded the historic range of 60-80%. Moreover, operational and economic factors could result in much lower utilization rates, particularly during multi-day periods of high demand and other prolonged events. Magnum therefore believes an assumed utilization rate at the high end of the historical range (i.e., 80%) would be far more realistic.

A second highly optimistic assumption is that system outages will never involve more than one major storage or transmission asset.[7] While unplanned outages involving two major assets may be *relatively* rare, they can and do occur. Moreover, it's entirely foreseeable that an unplanned outage could occur at the same time another asset is in the middle of a planned outage. It's important that the Commission have a realistic assessment of the storage inventory levels needed to meet minimum performance standards under such conditions. Magnum

[5] Updated Proposal at 14.

[6] *Id.* at 13-14.

[7] *Id.* at 14.

therefore urges staff to revise the framework to include a "planned+unplanned outage" scenario as part of each Reliability Assessment.

Magnum is pleased that staff recognizes that any given Reliability Assessment "may return a result that does not meet the required natural gas delivery performance, even when implementing the full set of allowable operational actions."[8] In that event, staff suggests "a sensitivity analysis may be performed to estimate what additional actions may be taken beyond the set of operational actions defined by the reliability standard."[9] However, staff's proposal does not identify any specific actions that could be modeled for that purpose. Magnum believes it would be prudent to identify at least one such action (or a set of related actions) beforehand.

Upon completion of the MGS and WEST Header projects, Magnum will offer highly flexible, intra-day services, including no-notice service, firm hourly balancing service and load following service, to the western energy markets. Potential customers include local distribution companies and their electric generation customers and other large end-use customers in Southern California and the Los Angeles basin. Magnum believes these aforesaid services are well suited for mitigating the loss of deliverability from Aliso Canyon and, therefore, proposes that they be used as the basis for an "additional actions" scenario as contemplated by the proposed framework. Magnum is prepared to discuss these service options in more detail at the upcoming technical workshop.

B. Feasibility Assessments

The proposed framework states that Feasibility Assessments "may" be done to determine whether the minimum storage inventory levels identified through a Reliability Assessment can

[8] Updated Proposal at 9.

[9] *Id.*

be maintained throughout the year.[10] This suggests that Feasibility Assessments are merely an option and not a requirement under staff's proposal. However, Magnum believes Feasibility Assessments are just as important as Reliability Assessments. The Commission needs to know not only how much storage inventory is needed to maintain system reliability, but also whether that inventory level can be maintained throughout the year. Magnum therefore urges staff to revise the proposed framework to clearly state a Feasibility Assessment will be performed in every case where a Reliability Assessment identifies a minimum inventory level that exceeds the storage capacity on SoCalGas' system without Aliso Canyon.

Magnum is also concerned that some of staff's proposed assumptions for the Feasibility Assessments are too optimistic. Of greatest concern to Magnum is staff's proposed assumed receipt point utilization rate of 95%. While a 95% utilization rate may be a plausible assumption for a very short period (e.g., an Emergency OFO day), there is simply no evidentiary or logical basis for assuming such a high utilization rate could or would be sustained for longer periods. Given the intended purposes of Feasibility Assessments (determining whether specified inventory levels can be maintained for an extended period), a much more reasonable assumption would be that receipt point utilization will fall squarely within the historical range of 60-80%. Magnum therefore urges staff to revise the proposed framework to set the receipt point utilization rate at 70% for all Feasibility Assessments.

III. ECONOMIC MODELING

The proposed framework for the Implied Heat Rate assessment indicates that staff will calculate the implied heat rate using North of Path 15 (NP15) and South of Path 15 (SP15) day-ahead market electric prices (per MWh). Subsequently, staff will utilize the marginal congestion

[10] Updated Proposal at 10 and 16.

component (MCC) of the locational marginal price (LMP) as part of the Congestion Rent Assessment using data obtained from the Open Access Same-time Information System (OASIS). While it is clear the MCC component of the LMP prices will form the basis for the Congestion Rent Assessment, it is not clear in the Implied Heat Rate assessment what specific data and source is intended by the reference "North of Path 15 (NP15) and South of Path 15 (SP15) day-ahead market electricity prices ($/MWh)".

Given that the dramatic increase in solar generation is the primary driver of recent changes in both implied heat rates and congestion levels in Southern California, and given that "on the margin" gas-fired generation will more and more be used primarily to smooth out the duck curve caused by sharp declines in solar generation during the late afternoon and early evening, it's important to assess intra-day implied heat rates to help determine the impact of tighter gas supplies on wholesale power prices. Magnum believes Implied Heat Rate should be assessed on an hourly basis using hourly day-ahead LMP prices obtained from the Open Access Same-time Information System (OASIS) and, as such, requests clarification on this issue.

IV. CONCLUSION

Realistic assumptions are critical to ensuring the modeling performed in Phase 2 produces information on which the Commission can rely in determining whether the use of Aliso Canyon should be reduced or eliminated and assessing the potential role of the highly flexible, intra-day services Magnum plans to offer in mitigating the associated reliability and economic impacts. Magnum therefore recommends the receipt point utilization rates to be used in the planned Reliability and Feasibility Assessments be adjusted to comport with historical rates. In addition, Magnum recommends that each Reliability Assessment include a planned+uplanned outage scenario. Magnum further recommends that a Feasibility Assessment be performed for every case where a Reliability Assessment identifies a positive minimum inventory level

requirement for Aliso Canyon. Magnum also requests clarification of the intended data and source to be used to develop the Implied Heat Rates for modeling the impact of tighter gas supplies on the CAISO markets.

Magnum appreciates staff's consideration of its recommendations and requests and looks forward to a robust discussion of the proposed framework at the upcoming workshop. Magnum also looks forward, as the proceeding progresses, to a discussion of potential ways to mitigate the reliability and economic impacts that could result if the Commission directs SoCalGas to reduce utilization of Aliso Canyon or close the facility.

Respectfully submitted,

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